Mastering Attribution

Adapting Citation and Anti-Plagiarism Instruction into a Competitive and Active Game-Based Learning Activity

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Introduction

Research Questions: 1) Do students have a baseline knowledge of citation mechanics? 2) Do students respond more positively to alternate modes of anti-plagiarism and citation instruction? 3) Will students embrace the ethics of research if put into a competitive, and game-based learning environment?

Citation Master is a collaborative effort between the McDaniel College Hoover Library, Writing Center, and select faculty within the department of English to develop a game-based learning approach to teaching students about the importance of academic attribution. By design, this workshop does not focus on idiosyncratic, style-based rules, but instead focuses on the broader skills, philosophies, and ethics behind proper citation and good writing. Our goal is to have students take ownership of their research and to realize how the work of others can strengthen or weaken their own work.

Citation Master was born out of necessity. Our college, like most institutes of higher education in this country suffers from a plague of plagiarism and a student culture of nonchalance with regard to research and writing ethics. It was the research and project team's belief, however, that these instances were not wholly based on dishonesty. It is our on-going hypothesis that students lack a fundamental understanding not of citation mechanics, but of the essential elements underlying proper academic attribution. These issues include scholarly wayfinding and mapping through reference lists, ethical use of other's intellectual property, that it is acceptable to utilize the ideas of others in one's work, and most importantly for our project that the ideas and research of others bolsters one's work and lends credibility. This hypotheis is built on the foundation of education scholars like James Paul Gee who's 2013 work, The Anti-Education Era, illustrates that students are not becoming dumber, they are becoming impatient with old models of education that have never been conclusively proven to work (Gee, 2013).

This workshop was designed to increase the awareness of how to develop, research, and support an academic thesis. Additionally, students will become more aware of plagiarism and the pitfalls of poor scholarship. It is our goal to foster creative learning and lasting knowledge through an interactive game-based environment. Current research into game-based learning falls into two distinct modes. The first of these modes is to shape and drive behaviour and is exemplified more accurately in profit generating games such as those available for smart phones. This model is typically used to exploit and push users into a set behaviour (ex. Play a game everyday to unlock a prize). The other typical mode is to attract learners to a new topic by incorporating game elements (Kim, 2015). While our game model does include some competitive aspects and a reward system, our overall motivation is more closely rooted in the latter example in that we are working to attract learners to a new activity through an interactive and fun device. During the course of the workshop, students will be grouped into two teams and given a polarized research topic. Each team will be assigned one side of the argument and asked to research and support their position in a debate format. The students will then be given a short reiteration of their First Year Seminar library-skills session and asked to begin conducting their research.

Game Basics and features:

-Fantasy setting with D&D/RPG style character roles
-The Arbiter – Game leader
-The Professor – Class professor and co-judge with the Arbiter
-Wizards-at-Large – Librarians
-Dwarven Researchers – Books and physical resource researchers
-Elven Researchers – Digital resources researchers
-Quest Leaders – Keeps the team on-task and organizes research/thesis
-Chance Cards – Cards that reflect real life good and bad scenarios that can hurt or help a student's chance of successfully completing an assignment
-Die-of-Destiny – A die that is rolled to determine which random chance card is pulled

Methods

Direct assessment of individual skills with a pre-and-post-test:
Students will be given a pretest in order to gauge their initial understanding of the desired learning outcomes. At the end of the workshop, the students will be asked to take a follow-up test which will ask similar questions and test their understanding of the core concepts following the workshop. We will measure the change between the two tests in order to assess student understanding of the learning outcomes.

In-Situ Instructor Evaluation:
During the student presentation of their argument, instructors will assess their use of sources, the persuasiveness of their argument, their level of research, and their basic citation skills.

Peer Review:
The team with the opposing thesis will judge their opponents on their use of sources, their persuasiveness, their level of research, and their citation skills and present a rebuttal. This process of situational peer review will allow students to reflect on their skills and offer constructive advice for their cohorts.

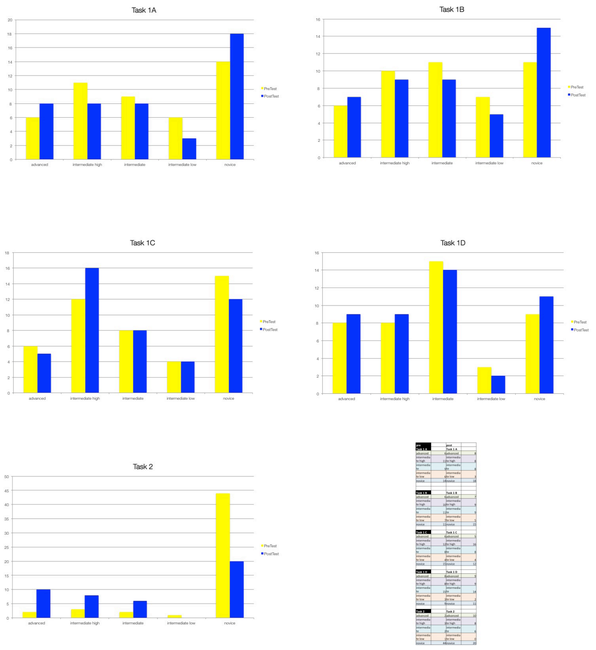
Rubric Assessment:
Following the class session, the instructors evaluated the student and team performance using both an individual and team rubric to grade the student's progress towards achieving the desired outcomes of the project.

Desired Outcomes

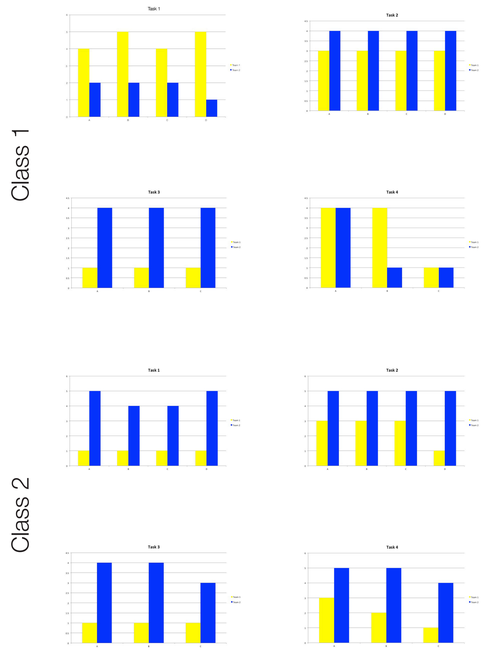
1) Students recognize the important difference between plagiarized use of work and fully attributed use as stated in the McDaniel College Honor System.
By participating in the interactive workshop, students will learn-by-doing how to correctly incorporate work into their team's argument. The teams will be assessed against a rubric on their use of incorporated work.
Additionally, students will be asked to complete a questionnaire before and after the workshop. This questionnaire will be used to gauge the level of student understanding of plagiarism and will include a short quiz in order to measure the change in student understanding.
2) Students appraise resources and select the most appropriate source for their team's argument.
Students will provide a bibliography of their sources to the instructors who will be judging their team's argument. The bibliography will be assessed against a rubric and the score of that assessment will be used to help determine the overall score for the team.
3) Students demonstrate an understanding of the fundamentals of citation in order to use their selected source properly.
Students will assemble a bibliography of their sources using an appropriate citation style for the class (ex. English 1101 students will use MLA citation guidelines). This bibliography will be judged against a rubric and counted towards their team's overall score.
4) Students employ an increased understanding of the utilization of authoritative argument in developing their thesis.
The argument presented by the students will be judged against a rubric that assesses their use of appropriate and authoritative sources and how well the sources were incorporated into their overall argument.

Results

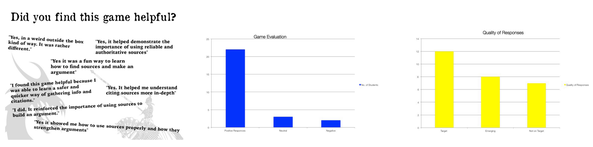
Individual Student Assessment



Team Assessment

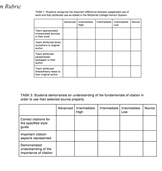


Student Feedback and Game Assessment

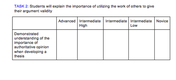


Rubric

Team Rubric



Individual Rubric



Discussion & Explanation of Data

The data show that students entered the game session during their English Composition course with an established notion of citation and plagiarism. In the student pre-tests, the phrase "to give credit where credit is due" came up repeatedly to the question "why do you need to cite your sources?" This validated our belief that the students have previously received citation instruction, and also validated our belief that this previous instruction gave the students only a vague idea about the rules, and gave them nothing about the philosophy of attribution.

In the post-test, the data is far less conclusive, but this data shows a positive trend that our workshop was successful in teaching the philosophy of attribution. In the Task category 1 there were instances where the number of students in the novice category increases after the workshop indicating that students did not preform as well on the post-test as they had on the pre-test. There are two potential problems here with the experiment design: 1) The question prompt was not explicit enough to gather the desired data 2) students did not understand that they were to expand, but still include citation basics in their response. In creating the questions for the pre and post-tests, we were attempting to be a neutral as possible in our wording as to not bias their answer. It is clear from the results, however, that we were not specific enough to elicit an acceptable answer. We had assumed that the workshop intervention would generate a more sophisticated understanding of academic attribution incorporating both their initial understanding and the lessons we were attempting to teach. Tellingly, our assessment of Task 2 showed the most improvement with students indicating that our assumption was correct. There was a 54.5% decrease in the instance of students being graded in the Novice category (44 Pre-Test, 20 Post-Test) and a 900% increase in students scoring in the Advanced category (2 Pre-Test, 10 Post-Test).

The direct assessment student data does not wholly illustrate that the intervention was successful, coupling of this data with the team assessment and the qualitative data we acquired works towards an understanding the game's effectiveness. The team data indicates that the team that most incorporated the outcomes-based rubric requirements (which were reinforced throughout the session) performed exponentially better than the teams which did not. After the winner was determined based on these criteria, both student teams understood the importance of attribution both as a way of avoiding plagiarism and as a rhetorical move to advance their argument. Through student feedback about the session we learned that while the actual rubric grading of their pre and post-tests was inconclusive, a majority of students answered the question, "was this game helpful?" either on-target or emerging towards the desired outcomes as determined by the content of their answer (ex. "Yes, it helped demonstrate the importance of using reliable and authoritative sources")

Conclusions and Summary

Qualitative data:

tot 51 - 24 =	27		Target Response
no response	24		Target 12
Positive Responces	22		Emerging 8
Neutral	3		Not on Target 7
Negative	2		

-Number of students in the Advanced category increased in all Tasks
-Biggest increase in Advanced category students was in Task 2
-It was fun and students responded well to the game sessions overall and actively participated in both the research and debate aspects.
-Students working towards a more sophisticated understanding of academic attribution
-It's interactive and active learning allowing students to discover important aspects of the process through trial and error
-Should have asked more direct questions on the pre and post-tests
-Students divided their roles evenly and most students did not report feeling singled-out or forced to take on the entirety of their teams' position.
-Students gave positive evaluations indicating that they have learned the core lessons of the session and have performed well on the team's assessment rubric
-Taught critical skills in a positive way
-Positive reinforcement of good study habits via the Chance Cards
-Enforced the importance of attribution to "Generation Me"
-Introduces them to Library and Writing Center staff and shows them that we are fun and non-threatening
-Sits as a building block for other Writing Center and Library sessions during their time at McDaniel College

Next steps and Recommendations:

-More active learning as a part of the Library's Information Literacy Program
-Working closer with students to understand their baseline knowledge to avoid redundancies
-Inclusion of the Citation Master game in the First Year Experience curriculum (accepted for fall 2015 semester)
-Working with team members on new game ideas and publication
-Sharing data and game materials with other institutions

References

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